

2010 Annual Drinking Water Quality Report
City of Jackson Surface Water System
Public Water Supply Identification Number MS0250008
June 17, 2011

We're pleased to present to you the 2010 Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water sources are the Ross Barnett Reservoir and the Pearl River (surface water).

The Mississippi Department of Environmental Quality has completed their source water assessment report which is available for review by appointment at the Water / Sewer Utilities Division Office, 200 S. President Street, Room 405, between the hours of 8:00 AM and 5:00 PM Monday through Friday. Call 601-960-1007 for appointment.

This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact Don Bach, P.E. at 601-960-1007. We want our valued customers to be informed about their water utility. To participate in decisions that may affect the quality of the water, please attend any of our regularly scheduled City Council meetings. They are held every other Tuesday at either 6:00 PM or 10:00 AM within City Hall.

The City of Jackson Surface Water System routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period beginning January 1, 2010 and ending December 31, 2010. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not

necessarily pose a health risk. In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present. The test result table does not list non-detected contaminants.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Treatment Technique (TT) - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

Maximum Contaminant Level - The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal - The "Goal" (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants								
Total Coliform Bacteria	N	2010		0.0%		0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Fecal coliform and E. coli	N	2010		0		0	0	Human and animal fecal waste
Total Organic Carbon (TOC)	N	2010	2.88	Removal percentage within limits	ppm	n/a	TT - 35% to 50% removal based upon untreated water TOC concentration	Naturally present in the environment
Turbidity	Y	2010	1.55 maximum	Lowest monthly percentage below 0.3 = 92.6	NTU	n/a	TT - for conventional filtration, 0.3 NTU in 95% of samples collected, 1 NTU maximum	Soil runoff
Inorganic Contaminants								
Arsenic	N	2010	0.634	0.567-0.701	ppb	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	N	2010	0.016	0.014-0.018	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	N	2010	1.546	1.484-1.607	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper	N	2008	0 (90 th percentile)	0	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits
Fluoride	N	2010	0.555	ND-1.86	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead	N	2008	5 (90 th percentile)	0	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

TEST RESULTS								
Contaminant	Violation Y/N	Date Collected	Level Detected	Range of Detects or # of Samples Exceeding MCL/ACL	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Nitrate	N	2010	0.09	ND-0.18	ppn	1	1	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Synthetic Organic Contaminants including Pesticides and Herbicides								
Atrazine	N	2007	0.0675	0.06-0.08	ppb	3	3	Runoff from herbicide used on row crops
Disinfection Byproducts								
Chloramines	N	2010	2.400	2.5-5.9	ppm	4	4	Water additive used to control microbes
Chlorine Dioxide	N	2010	35.7	ND-380	ppb	800	800	Water additive used to control microbes
Chlorite	N	2010	0.078	ND-0.86	ppm	0.8	1.0	By-product of drinking water disinfection
HAA5 (sum of 5 Haloacetic Acids)	N	2009	23.0	ND-30.0	ppb	N/A	60	By-product of drinking water chlorination
TTHM (Total trihalomethanes)	N	2009	28.0	3.4-38.6	ppb	N/A	80	By-product of drinking water chlorination

*N/A indicates that chemical is monitored for but not regulated.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Additional Information for Lead:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Jackson is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>. The Mississippi State Department of Health Public Health Laboratory offers lead and copper testing for \$20 per sample. Please contact 601-576-7582 if you want to have your water tested.

Our system had some problems during 2010:

During January 2010, we exceeded the limits on turbidity. Turbidity has no health effects. However, turbidity can interfere with disinfection and provide a medium for microbial growth. Turbidity may indicate the presence of disease-causing organisms. These organisms include bacteria, viruses, and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. We have corrected this problem with better maintenance of analytical equipment and training our personnel to better respond to analytical data.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care

providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Please call our office if you have questions.

We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Water System User Charge Notification

Your water use charge is \$2.48/100 cubic feet if you are within the City Limits, \$4.96/100 cubic feet if you are outside the City Limits but within 1 mile of the City Limits and \$1.48/100 cubic feet if you are more than 1 mile outside of the City Limits. 65% of this charge is used for operations and maintenance of the water system. 35% of this charge is used for debt retirement.

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water, but can also save you money by reducing your water bill. There are a few suggestions:

Conservation measures you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures and install water -saving devices in faucets, toilets and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.
- Do not let the water run while shaving or brushing teeth.
- Soak dishes before washing.
- Run the dishwasher only when full.

You can conserve outdoors as well:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.
- Use water from a bucket to wash your car and save the hose for rinsing.

Information on other ways you can help conserve water can be found at www.epa.gov/safewater/publicoutreach.

2010 Annual Drinking Water Quality Report
City of Jackson Maddox Road Well System
Public Water Supply Identification Number MS0250012
June 17, 2011

We're pleased to present to you the 2010 Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our six wells draw from the Sparta Aquifer.

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Microbiological Contaminants								
Total Coliform Bacteria	N	2010		0		0	Presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Fecal coliform and E. coli	N	2010		0		0	0	Human and animal fecal waste
Radioactive Contaminants								
Alpha emitters	N	2010	0.655	ND-1.31	PCi/L	0	15	Erosion of natural deposits
Combined Radium	Y	2010	3.64	0.91-6.36	PCi/L	0	5	Erosion of natural deposits
Inorganic Contaminants								
Barium	N	2008	0.002	0.002-0.003	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Copper	N	2009	0.2 (90 th percentile)	0.011-0.236	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Chromium	N	2008	0.705	0.618-0.814	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	N	2010	0.458	0.08-3.5	ppm	4	4	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead	N	2009	2.0 (90 th percentile)	ND-2.1	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits

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Disinfection Byproducts								
Chlorine	N	2010	2.450	2.33-2.45	ppm	4	4	Water additive used to control microbes
HAA5 (sum of 5 Haloacetic Acids)	N	2010	20.0	ND-30.0	ppb	N/A	60	By-product of drinking water chlorination
TTHM (Total trihalomethanes)	N	2010	28.0	3.3-42.8	ppb	0	80	By-product of drinking water chlorination

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Our system had some problems during 2010:

We are required to monitor your drinking water for specific contaminants on a monthly basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. According to EPA CFR 141.21(a)(4), public water systems that are required to collect 6 or more routine bacteriological samples monthly may not collect all samples on the same day. Our system collects 15 routine bacteriological samples per month. During August 2010, we collected all 15 samples in the same day. We have corrected this problem by hiring an Acting Laboratory Supervisor and by limiting the number of samples collected in a single day to 5.

During a sanitary survey conducted on 11/18/2010, the Mississippi State Department of Health cited the following significant deficiency: Inadequate security measures. Corrective actions: The

system has completed the repair and clearing of the security fencing surrounding water facilities. All deficiencies were completed by 4/11/2011.

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